

REMARKS

Claims 3-5, 9-11, 15-17, 19, 21 and 23-29 are all the claims pending in the present application.

Reconsideration of the application identified in caption in light of the following remarks is respectfully requested.

I. Response to Rejection under 35 U.S.C. § 103(a)

Claims 3-5, 9-11, 15-17, 19, 21 and 23-29 were rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over U.S. Patent No. 5,045,322 to Blank et al. in view of U.S. Patent No. 5,498,650 to Flexman et al. Applicants respectfully traverse the rejection for the following reasons.

Blank et al. relates to an antimicrobial superabsorbent composition comprising a cross-linked partially neutralized acrylic acid-based polymer having covalently bonded thereto a silane. In accordance with the teachings of Blank et al., the presence of the silane component covalently bound to the polymer provides effective and sufficient antimicrobial activity. Therefore, one of ordinary skill in the art would not have been motivated to modify the teachings of Blank et al. by including another antimicrobial agent in addition to or instead of the silane component.

Flexman et al. relates to poly(lactic acid) compositions comprising 3-200 kDa lactic acid polymers and a plasticizer, for use in the manufacture of packaging films, filters, foamed products, injection molded products and shaped articles. In the passage cited by the Examiner, admittedly, it is stated that *"if the compositions of this invention are intended for use as food packaging, e.g. foamed trays for meat and poultry products, a lactic acid-based compound such as lactide or lactic acid oligomers may be incorporated into the composition to provide antibacterial properties [...]"* (although their inclusion is not preferred).

However, there are no reasons that a person of ordinary skill in the art setting out to improve Blank et al.'s products would consult a document concerning food packaging, a field which is not even remotely related to superabsorbent sanitary napkins. The Examiner's assertion that a skilled person would have done so appears to be based entirely on hindsight knowledge, which is improper.

Moreover, even if assuming, *arguendo*, that a skilled person in the field of superabsorbent sanitary products would have turned to Flexman et al., there would not have been any 'predictable result' by combining Blank et al. and Flexman et al., contrary to the Examiner's assertion.

Specifically, Flexman et al. does not concern cross-linked partially neutralized acid-based polymers. Therefore, it is entirely 'unpredictable' whether the essential superabsorbing properties of the cross-linked partially neutralized polymers of Blank et al. will be retained when an amount of a lactic acid-generating compound is added thereto. As will be understood by those of ordinary skill in the art, addition of acid (generating) compounds might very well affect cross-linking and/or neutralization of these acidic polymers. As a matter of fact, it was generally understood in the art that the addition of acidic compounds to these superabsorbing polymers could be detrimental to the absorbing capacity of superabsorbing polymers.

Flexman et al. does not provide any hint or suggestion as to the suitability of lactide for microbial/odour control in sanitary products, especially diapers. It should be noted that microbial growth and odour control in such products during use is not quite comparable to microbial spoilage of packaged meat or poultry (during storage), e.g., in terms of microbial species, conditions, time course, etc.

Furthermore, as can be inferred from the description in lines 12-13 of page 1 of the present specification in combination with the results in Tables 2, 3 and 4 of the present specification, it is quite an essential requirement in sanitary products that the pH value in the material during use (notably after wetting of the superabsorbent polymer) is maintained within a specific range, in order to avoid skin problems. Flexman et al. is entirely silent as to the pH effects of adding lactic acid generating compounds and, hence, as to the suitability of lactide for antimicrobial/odour control in sanitary products. Clearly, skin irritation is not an issue in packaged meat/poultry products. Moreover, the pH value upon wetting is established depending on the specific combination of the antimicrobial agent and the (partially neutralized) superabsorbent polymer in which it is incorporated. In other words, the suitability of lactide for inclusion in superabsorbent sanitary products *per se*, is in no way derivable from Flexman et al.

Finally, it is clear that Blank et al. in fact intends to avoid the addition of an independently functioning antimicrobial agent. As indicated in Applicants' arguments presented in the previous response, it is believed that according to Blank et al., covalent binding of the silane component, e.g., TMS, to the polymers, is essential to the invention (column 4, lines 51-54), as this yields polymers that possess in addition to their superabsorbancy characteristics, the property of antimicrobial activity (column 2, lines 32-34), as opposed to both functioning independently one from the other (column 2, lines 51-55). Hence, the 'replacing' or 'supplementing' of the silane component with an independently functioning antimicrobial agent would, at least partially, 'destroy' exactly what Blank et al. tries to achieve.

Again, in this respect, Applicants refer to the view expressed in a number of Board decisions and a decision of the CCPA that a combination of primary and secondary

references is improper in a case in which modification of primary reference's structure in proposed manner would destroy the invention disclosed in the primary reference for its intended purpose. See, e.g., *Ex parte Sternau*, 155 USPQ 733, 735 (Bd. App. 1967), *Ex parte Westphalen* 159 USPQ 507 (Bd Pat Appeals Int, 1968), *Ex parte Eastwood, Brindle, and Kolb*, 163 USPQ 316 (Bd Pat Appeals Int, 1968), *In re Meunier*, 434 F2d 657, 168 USPQ 43 (CCPA 1970), *Ex parte Hartmann*, 168 USPQ 43 (Bd Pat Appeals Int 1974), *Ex parte Thompson* 184 USPQ 558 (Bd Pat Appeals Int, 1974), and *Ex parte Acosta* 211 USPQ 636,637 (Bd Pat Appeals Int, 1979).

In summary, there would not have been motivation for modifying Blank et al. by incorporating the lactic acid generating compounds described in Flexman et al.

In view of the foregoing, Applicants respectfully that the present claims are patentable over Blank et al. in view of Flexman et al., and thus the rejection should be withdrawn.

II. Conclusion

From the foregoing, further and favorable action in the form of a Notice of Allowance is believed to be next in order and such action is earnestly solicited. If there are any questions concerning this paper or the application in general, the Examiner is invited to telephone the undersigned at her earliest convenience.

Respectfully submitted,

BUCHANAN INGERSOLL & ROONEY PC

Date: November 19, 2009

By: 

Fang Liu, Ph.D.

Registration No. 51283

P.O. Box 1404
Alexandria, VA 22313-1404
703 836 6620